

A1
a bonding material between said second surface of said lead frame and said metal block,

wherein said bonding material has a higher heat conduction than said insulation layer.

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3. (Amended) The semiconductor device according to claim 1,
wherein said metal block has a wider surface opposite said bonding material than said bonding material.

5. (Amended) The semiconductor device according to claim 1, further comprising:
a resin package configured to seal said semiconductor element, said lead frame and said metal block while uncovering said insulation layer,

wherein said insulation layer has a higher heat conduction than said resin package.

A3
6. (Amended) The semiconductor device according to claim 5,
wherein said insulation layer comprises a base material with a same base as said resin package, and ceramic powder.

7. (Amended) The semiconductor device according to claim 1,
wherein said metal block has a first surface and a second surface opposite said insulation layer,

wherein said first surface of said metal block is closer, as viewed in a vertical direction, to said lead frame than is said second surface of said metal block, and

wherein said bonding material lies between said second surface of said lead frame and said first surface of said metal block.

8. (Amended) The semiconductor device according to claim 1,
wherein said lead frame has a third surface on the same side as said second surface,
wherein said third surface is closer, as viewed in a vertical direction, to said semiconductor element than is said second surface, and

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wherein an insulation space is defined between said metal block and said third surface.

IN THE ABSTRACT

Page 24, lines 3-14, please amend the abstract to read as follows:

A4

A lead frame has a die bonding pad portion and an inner lead portion. A power element is mounted on the die bonding pad portion of the lead frame and is bonded to the die bonding pad portion with a solder. The power element has electrodes connected through an aluminum wire to the inner lead portion of another lead frame. A metal block has a surface formed with a protrusion bonded to the lead frame in opposed relation to the power element. A resin package has an insulation layer formed on an opposite surface of the metal block from the lead frame, and seals the power element, the lead frames and the metal block. An external heat dissipator is mounted on a surface of the insulation layer opposite from the metal block. A semiconductor device and a method of manufacturing the same improve a heat dissipation characteristic and maintain a dielectric breakdown voltage.

REMARKS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-8 are pending in the present application. Claims 1, 3 and 5-8 have been amended, and Claims 9-11 have been cancelled by the present amendment.

In the outstanding Office Action, Claim 3 was rejected under 35 U.S.C. § 112, second paragraph; Claims 1-7 were rejected under 35 U.S.C. § 102(b) as anticipated by Noda et al;